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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/643,441	08/22/2000	Kenichi Hasegawa	FUJR-17.570	8381
26304	7590	05/14/2004	EXAMINER	
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575 MADISON AVENUE			ART UNIT	
NEW YORK, NY 10022-2585			PAPER NUMBER	

2662

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/643,441

Applicant(s)

HASEGAWA ET AL.

Examiner

Hanh Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 0 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Application filed on 02/26/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4, 7 are rejected under 35 USC 103(a) as being unpatentable over **Asai** (US Pat. No. 5,402,414) in view of **Admitted Prior Art**.

In claims 1 and 7, **Asai** discloses, in Fig.8, a plurality of stations SA-SE connecting via orderwire lines in a ring (See col.8, lines 1-5). Refer to Fig.7, a typical station SA (a junction node) is described to comprise adders A1, A2 and A3 (a plurality of mixing means disposed in a junction node). See col.5, line 63 to col.6, line 20. The adder A3 (one of the mixing means) adds signals from orderwire line L1 via detecting unit 141; orderwire line L2 via detecting unit 142 for outputting to a telephone (a mixer mixing orderwire signals from orderwire lines). See col.6, lines 10-20. Orderwire lines L1, L2 as seen in Fig.8 are originated from different stations SE, SB respectively. A control circuit 17 (combination control means) is included in the station SA (control means disposed in the junction node). See Fig.7. The control circuit 17 controls calls-in operation by using the detecting units 142, 141 to detect the calling stations via orderwire lines L1, L2 (combination control means controlling calls-in to detect which of orderwire lines the calls-in are originated). See col.6, lines 25-45. **Asai** does not disclose a plurality of ring network and directing which ring networks should form a group of sharing

orderwire functions. **The admitted prior art** discloses on page 4, line 18 to page 5, line 3 of Fig.14 that a junction node 100 coupling rings A with B (a plurality of rings). Both rings share orderwire functions at junction node 100 (sharing orderwire functions).

Since the station SA in **Asai** comprising a plurality of adders A1, A2, A3 and connects to other stations in a ring network; therefore, it would have been obvious to one ordinary skill in the art to apply the teaching in the Admitted prior art to use the station SA as a bridge node coupling any two ring networks in the art. By this application, each adder is mixed with orderwire signals of at least two ring networks which perform shared order wire functions. The motivation is to expand operation of ring networks while improving orderwire signals maintainability;

In claim 3, **Asai** discloses, in Fig.7, that adder A3 adds digital signals from line L1 and line L2. The digital signals are converted by codecs 13W, 13E (adding up signals in digital fashion). See col.5, lines 65-67.

In claim 4, **Asai** discloses, in Fig.7 & Fig.8, adders A1, A2 and A3 (a plurality of mixing means). Adders A1, A2, A3 add signals from orderwire lines L1, L2 coming from other stations in ring network (mixing means mixing orderwire signals sent from network elements in at least one ring network). See col.5, line 63 to col.6, line 20.

Claim 2 is rejected under 35 USC 103(a) as being unpatentable over **Asai** (US Pat. No. 5,402,414) in view of the **Admitted prior art** , and further in view of **Watanabe** (US Pat. No. 6,285,755 B1).

In claim 2, **Asai** does not disclose conversing between A-law or Mu-law coded signal and coded digital voice signal. **Watanabe** discloses, in Fig.15, analog signal at input B is

converted into digital code voice through MU-law codec 250 (converting between Mu-law and coded digital voice signal). See col.11, lines 22-40. Since the conversion between Mu-law and coded digital voice is performed by orderwire transmission portion 19 in orderwire transmission apparatus B (see Fig.2, col.2, lines 24-35); and the orderwire signal of **Asai** is in SDH format (A-law); therefore, it would have been obvious to one ordinary skill in the art to apply the conversion of **Watanabe** into **Asai** 's station in order to convert a format of SDH (A-law) ring network coupling to a junction node into digital coded voice or convert a format of SONET (Mu-law) ring network coupling to the junction node into digital coded voice. The motivation is to provide the junction node capability of communicating maintenance signal between different format ring networks.

Response to Arguments

Applicant's arguments with respect to claims 1-4 and 7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dombrowski et al. (US Pat. No. 6,632,032 B1) discloses Remote Data Network Access in a Communication Network Utilizing Overhead Channels.

Waschka, Jr. (US Pat. No. 4,449,247) discloses Local Orderwire Facility for Fiber Optic Communication System.

Naiman et al. (US Pat. No. 4,621,357) discloses Time Division Switching System Control Arrangement and Method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 703 306-5445. The examiner can normally be reached on Monday-Friday from 8AM to 5PM. The examiner can also be reached on alternate


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on 703 305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen


May 12, 2004